

Architectural Specifications*

RAPID ROLL[®] DOOR

MODEL 670



*975-A OLD NORCROSS ROAD
LAWRENCEVILLE, GEORGIA 30045-4321
(770) 338-5000
(800) 252-2691
(770) 338-5024 (FAX)
IN QUEBEC: (800) 673-6181*

MOUNTING -

INTERIOR OR EXTERIOR

MAXIMUM COVERAGE -

429 SQUARE FEET

(Verify Actual coverage with Sizing Chart)

MAXIMUM WIDTH -

24' - 0"

MAXIMUM HEIGHT -

26' - 0"

*

Please verify specifications. Albany Door Systems reserves the right to modify specifications any time without notice.

SECTION 08373

HIGH SPEED ROLLING DOORS

PART 1 GENERAL

1.01 SUMMARY:

- A. Work described in this section includes manufacture, delivery and installation of high speed rolling doors, control devices and actuator systems.
- B. Related work is described in other sections:
 - 1. Field painting
 - 2. Electrical connections

1.02 REFERENCES:

- A. Applicable standards; standards of the following, as referenced herein:
 - 1. American Society for Testing and Materials (ASTM)
 - 2. National Electrical Manufacturer's Association (NEMA)
 - 3. Underwriters Laboratories, Inc. (UL)

1.03 SUBMITTALS:

- A. Product Data: Submit manufacturers' product data, roughing-in diagrams and installation instructions for each type and size of high-speed rolling door. Provide operating instructions, maintenance information and complete information describing the operating system including rough-in instructions.
- B. Shop Drawings: Submit shop drawings for special components and installations that are not fully dimensioned or detailed on the manufacturer's data sheets, including equipment interconnection diagrams.

RETAIN BELOW FOR EXTERIOR APPLICATION

1.04 PERFORMANCE REQUIREMENTS:

- A. Wind Loading: High speed rolling door to withstand a windload condition of 20.6 lbs./sq.ft. (70 mph) at standard pressure and temperature.

1.05 QUALITY ASSURANCE:

- A. Furnish each high-speed rolling door as a complete unit produced by one manufacturer, including hardware, accessories, mounting and installation components. Furnish high-speed rolling doors by one manufacturer for the entire project.

B. Inserts and Anchorages: Furnish fasteners and spacers as required to facilitate installation. If special requirements are necessary, coordinate those requirements with the general contractor.

1.05

WARRANTY:

A. Manufacturer shall warrant:

1. Rolltex™ fabric for a period of five (5) years, labor limited to one (1) year.

B. Manufacturer shall warrant mechanical and electrical components against defects in material and workmanship for two (2) year, labor limited to one (1) year.

PART 2

PRODUCTS

2.01

MANUFACTURER:

A. Acceptable product, subject to compliance with specified requirements: **Albany Door Systems, Model 670.**

2.02

MATERIAL AND COMPONENTS:

A. Door Panel:

1. Fabric: Fabricate panel of **Rolltex™** fabric comprised of a polyester monofilament woven, double layer seamless fabric, impregnated and coated with PVC.
2. Characteristics:
 - a. Thickness: 0.08" (2.0mm)
 - b. Impact strength: Capable of sustaining impacts up to 3,000 lbs./sq. in.
 - c. Tensile strength: 1,500 lbs./in. lengthwise and 2,200 lbs./in crosswise.
3. Colors: ** As selected by Architect from manufacturer's standard selection.
**Custom color selected by Architect upon approval of manufacturer.

B. Door Roll:

1. Fabricate 5.5" diameter, steel tube from 11 gauge steel complying with ASTM A513.
2. Drum tube deflection shall not exceed 0.01" per foot and shall not exceed 0.14" over the entire length.

C. Counterbalance System:

1. Internally mounted counterbalance/curtain tension system shall utilize an extension spring along with a cable and pulley mechanism.
2. Construct pulleys of high-impact injected molded plastic. Pulleys shall contain two permanently sealed and lubricated ball bearings.
3. Provide manufacturer's standard factory lubricated 6 x 9-3/16" steel cables with fiber core working in conjunction with Alloy 319 die cast aluminum cable drums.

D. Bottom Beam:

1. Beam shall be anodized alloy 6063 extruded aluminum.
2. Beam profile shall be 4.5" high.
3. Beam shall be capable of being removed if necessary.

E. Contactless Safety Edge™:

1. A set of through-beam photocells shall be mounted on retractable steel guides at each end of the bottom beam.
2. Photocell position shall be between door panel guide and 5" below bottom edge of door panel during door travel.
3. At closing, photocell shall detect any object and reverse door immediately before bottom edge rubber profile strikes object.

F. Safety Edge:

1. EDPM rubber profile shall pneumatically operate a pressure switch.
2. Safety edge cover shall be weatherproof yellow polyester woven PVC impregnated material.
3. On contact with foreign object, door shall reverse to full open position.

G. Inline Photocell: Provide an inline photocell in proximity to door line.

H. Side Frames:

1. Frame: 14 gauge galvanneal section including hinged cover together with 12 gauge galvanneal steel structural C-channel to guide door panel in its upward and downward movement.
2. Seal: Provide brush seals to seal against door panel.
3. Finish:
 - a. Paint: Durable, chemical and corrosion resistant coating applied to steel components.
 - b. Color: Silver, blue and brown.

I. Electrical Operation:

1. RapidRoll™ 670 high speed rolling doors shall be electrically operated by a heavy-duty drive unit featuring a Hypoid gear. The motor and gearbox shall be designed for high cycle operation. Door position shall be controlled by a bi-directional pulse encoder or limit switches. Basic operation features shall include inverter for soft starting and stopping, automatic closing timer, emergency stop, two actuating push buttons, an inline photocell and a brake release lever with a safety switch for manual operation.
2. Electrical Motor:
 - a. Provide high-starting torque, reversible intermittent duty, enclosed non-ventilated electric motor, sized to move door in either direction, from any position, at no less than the specified operating speed.
 - b. Motor: Three (3) phase motor rated for 1.5 h.p.
 - c. Door Speed: Up to 100" per second. (670 only)

- d. Power Supply:
 - 1) Primary Voltage: Coordinate wiring requirements and current characteristics of door electrical system with building electrical system. Supply shall be rated at ** 220**460**575** volt, single (1) phase, 60 Hz, 15 amps.
- 3. Operator Features: Operator features shall be direct drive through hollowshaft gearbox to top roll, bi-directional pulse encoder and thermistor for thermal overload protection.
- 4. Control Panel:
 - a. Panel enclosure shall be NEMA 4.
 - b. Allstar control panel with soft/start and soft/stop.
 - c. Wiring shall be completed by manufacturer and shall be ULC listed (File E103891).
 - d. Drive shall be controlled by an Albany International programmable logic controller.
 - e. Control functions determined by manufacturer's preparation of programmable logic controller.
 - f. Top and bottom limits to be adjustable from the control panel (no ladders necessary). (670 only)
 - g. Optional custom designed control system and/or components.
 - h. Control panel shall include an adjustable, automatic closing timer, emergency stop, one actuating push button and a cycle counter.
- 5. Push button stations and/or pull switches are standard actuation systems.
 - a. Optional actuation systems available shall be NEMA 4 rated or equivalent **extra push buttons**extra pull switches**radio control system including receiver, antenna and remote transmitter. System shall operate at 310 MHz, with 265 separate programmable security codes.**Photocell featuring an infrared beam which maintains "open" signal when interrupted** Metallic activated floor loop receiver reset system for vehicle detection.**Motion detector utilizing Doppler radar to detect motion.**
- 6. Inline Photocell: Provide an inline photocell in proximity to door line.

I. Protection features:

- 1. Provide fuses to protect from power line overcurrent and from secondary control voltage overcurrent.
- 2. Provide complete motor monitoring protection from the All Star Control System.
- 3. Provide thermal protection to protect motor from temperature build-up.
- 4. Provide switch to electrically disconnect control circuitry during manual operation.
- 5. Provide running timer to protect drive unit from motor run-on.
- 6. Provide reversing edge system that is continuously monitored and prevents door from closing if a fault is detected.

7. Provide emergency stop feature to instantly stop door in any position.
8. Provide start-up protection to ensure there is no movement of door when system detects a failure (power on/off/on, E stop...).
9. Provide a door-line photocell in proximity to door line.

2.03

OPTIONS:

- A. Large, heavy duty 670HD doors may include: Heavier drum tube, acrylic fabric, larger bottom beam, heavy duty motor mounting bracket, larger motor, extra wrap of fabric on top roll for stiffness.
- B. All Star™: Electronic frequency controlled soft-start/soft-stop drive system. Limit version standard on 670HD option doors.
- C. Warning horn and light shall indicate when door is about to close.
- D. Windbar shall provide added protection against **heavy wind** extreme pressure differentials.
- E. Custom logos as identified by Architect shall be silk-screened on door panel. (Rolltex™ fabric only).
- F. Full Roll Cover: Fabricate from 18 gauge galvanneal. Top shall have 15 degree slope. Provide drip gutter.
- G. Front Cover: Fabricate from 18 gauge galvanneal.
- H. Impact Release System™: Connection between aluminum bottom beam and end bracket shall be a steel clevis and brass tang in a 25 degree angle. Load transmission from balance/tension system through clevis and tang shall be the only mechanism that maintains joint during normal operation. This option is limited to a maximum recommended width of 14'.
- I. Window: Provide removable or non-removable PVC window, size 1'6" by 1'6".
- J. Full Vision Panel: Provide removable or non-removable PVC full vision panel full width of door by ** 2'-0" high.
NOTE Not Recommended on doors exposed to temperatures below 35°F/2°C

INCLUDE THE FOLLOWING FOR EXTERIOR APPLICATIONS.

- K. Roll Cover: Provide manufacturer's standard roll cover.
- L. Consult factory for custom applications.

PART 3

EXECUTION

3.01

INSTALLATION

- A. Install door and operating equipment complete with necessary hardware, jamb and head mold strips, anchors, inserts, hangers and equipment supports in accordance with final shop drawings, manufacturer's product data and as specified herein.
 - 1. Secure guides to walls, plumb, level and true to line. Anchor guides at spacings indicated on approved shop drawings.
 - 2. Provide additional support as necessary for attachment of guides, brackets and door and operator mechanisms to interfacing surfaces.
- B. Connect and adjust electrical components and operating hardware.

RETAIN PARAGRAPH BELOW WHEN PAINTING OPTION IS CHOSEN.

- C. Upon completion of installation, including work by other trades, lubricate, test and adjust doors to operate in accordance with manufacturer's product data. Final adjustments shall be made by manufacturer's authorized representative.
- D. Protect finished installations until Date of Substantial Completion. Repair damage to door panel, hardware and operators.

End of Section